Remarks

After the foregoing amendment, Claims 1-9, 11-21 and 23-34 are pending. Claims 1, 2, 3, 17, and 33 have been amended. Claims 34 is new.

Claim Rejections 35 USC § 103

Claims 1, 4, 5, 7, 8, 15 and 16

Claims 1, 4, 5, 7, 8, 15 and 16 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Knispel (US Patent 4883067) in view of Kim (US Patent Application Publication 2003/0109797).

As to claim 1 Knispel in view of Kim does not make obvious the instant invention as the instant invention teaches a method for reading signals, converting these and creating commands which are generated to the brain to drive therapeutic and non-therapeutic stimulus to effect a prolonged change in the individual's cognitive-emotive profile. The prolonged change which results in the instant invention lasts long beyond the stimulation and results in changes. Neither Knispel nor Kim alone or in combination teach this technique. Knispel does not disclose a method which results in long lasting changes to an individuals cognitive emotive profile. Knispel merely allows music to alter a persons physiological and psychological response while the music is playing. The alterations in response do not persist once the musical signal stops. Kim again does not result in a persistent or long term change in an individual's cognitive emotive profile. Kim merely records an individual's brain signals and transforms each into a chromatic bar graph which can be shown to the individual. The individual can look at this bar graph and try to alter their mood in this fixed instant in time. Kim does not result in any prolonged changes.

Claims 4, 5, 7, 8, 11, 15 and 16 are not anticipated by Knispel in light of Kim since they depend from claim 1 which as set forth above is not anticipated.

Furthermore, Knispel in view of Kim do not use transcranial magnetic stimulation ("TMS") to as commands to the individual to drive therapeutic and non-therapeutic stimulus intervention (*see claim 1)*. Nor do either Knispel or Kim compare current psychological state to a set of templates or indices to extract a multi-dimensional cognitive-emotive profile based on the signals which were acquired (*see claim 1*).

Regarding claim 7 Knispel does not disclose decomposing the EEG signal into frequency domain subcomponents, time domain subcomponents and spatial domain subcomponents. Rather Knispel uses four voices to dynamically interact with the changing state to generate a an ongoing EEG (column 4 lines 58-68; column 5 lines 1-27). This is not decomposing an EEG signal rather it is generating a EEG signal.

Claims 2 and 3

As to claims 2 and 3 Knispel, Kim in light of Epstein (US Patent 6132361) do not teach a method for adaptive intervention for effecting persistent changes in cognitive-emotive profile which results in behavioral changes (*claim 2*). None of the inventions disclosed in Knispel, Kim or Epstein teach that the effects of the TMS outlast the short time of the actual stimulation and persist over longer time frames to result in behavioral changes (*claim 3*).

Claims 6 and 9

Claims 6 and 9 are not unpatentable over Knispel in view of Kim as they depend from claim 1 which is patentable over Knsipel in view of Kim.

Claims 12 and 14

Claims 12 and 14 are not unpatentable over Knispel in view of Kim as they depend from claim 1 which is patentable over Knsipel in view of Kim.

Claims 17-20, 23 and 27-31

Claims 17-20, 23 and 27-31 are not unpatentable over Knispel in view of Epstein. Neither Knispel or Epstein disclose a real time system which effects changes in the cognitive-emotive profile and effect a persistent change resulting in improved memory function or reduction or elimination of symptoms of an illness. As to claim 17 Knispel teaches away from the claimed invention in that Knispel uses musical feedback via an audio signal as a means to deliver brain stimulation. As well known, musical signals are communicated in the audio spectrum. As a means to affect brain stimulation, Knispel must necessarily depend on the ability of the subject to hear the audio signals. This requirement is not present in the instant invention. Furthermore as to claims 18 and 19, as described above in relation to claim 7, Knispel does not disclose decomposing the EEG signal into frequency, time and spatial domain subcomponents.

There is no teaching in Knispel as to how to convert musical audio signals into electronic signals to effect brain stimulation. In that connection, the combination of Knispel and Epstein is

inappropriate. Neither Knispel nor Epstein disclose an invention which effects long term changes to the cognitive emotive profile.

Conclusion

Based on the forgoing amendments and remarks this applicant respectfully requests that this patent be allowed for issuance. If the Examiner has any questions or comments regarding the above Amendments and Remarks, the Examiner is respectfully urged to contact the undersigned at the number listed below.

Respectfully submitted,

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Dated: November 8, 2007

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